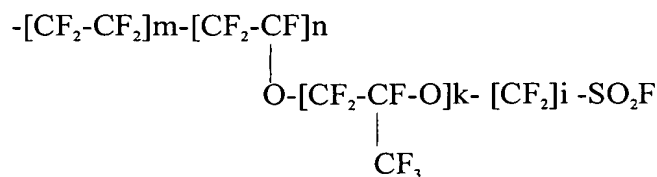


CLAIMS

1. A method to obtain perfluorocarbonate polymers that contain fluorosulphonyl functional groups and that have structural formula (I):

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(I)

10 that consists in copolymerization between tetrafluoroethylene and a perfluorovinyl ether in a fluorated organic solvent medium, in the presence of a radical type starter with additional input of tetrafluoroethylene during the copolymerization process, characterized because before starting the copolymerization, a previously synthesized dispersion is introduced of the
15 copolymer of tetrafluoroethylene and perfluorovinyl ether, in an organic solvent.

2. Method according to claim 1 in which the previously synthesized dispersion of the copolymer of tetrafluoroethylene and perfluorovinyl ether is
20 prepared in a perfluorated organic solvent in a proportion of 0.03 - 0.06% of the liquid reagent mass.

3. Method according to claim 1 in which the previously synthesized dispersion of copolymer of tetrafluoroethylene and perfluorovinyl ether in the organic solvent presents a concentration of copolymer of between 10 and 20 % in
25 mass of this solvent.

4. Method according to the previous claims in which perfluorovinyl ether is perfluoride [4-methyl-3,6-dioxa-7-octene-1-fluorosulphonyl] (FC-141)
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5. Method according to the previous claims in which the organic solvent is 1,1,2-trichloro-1,2,2-trifluoroethane (freon-113).

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6. Method according to previous claims in which for a radical type starter perfluorate peroxide is used.

7. Method according to claim 6 in which perfluorocyclohexanoyl peroxide is used as perfluorate peroxide.

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8. Method according to claim 7 in which the copolymerization is carried out at a temperature of 30-35°C and a pressure of 0.31-0.25 MPa.

9. Method according to claim 6 in which perfluoropropionyl is used as fluorated peroxide.

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10. Method according to claim 9 in which the copolymerization process is carried out at a temperature of 70-80°C and a pressure of 9-14 MPa.

11. Perfluorocarbonate polymer that contains fluorosulphonyl groups obtainable according to claims 1 to 10.

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12. Use of perfluorocarbonate polymer according to claim 11 in the preparation of ion exchange membranes.

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13. Ion exchange membrane that contains the perfluorocarbonate polymer according to claim 11.